

*Succinea avara* Say. Limington, Bowdoinham, and Veazie.

*Succinea aurea* Lea. Wells.

*Carychium exile canadense* Cl. Sidney, Fairfield, Abbott, and Monticello.

*Carychium exiguum* Say. Bowdoinham, Old Town, and Winn.

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ANCYLUS OBSCURUS HALDEMAN AND SPECIES REFERRED TO IT.

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BY BRYANT WALKER.

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I.

The available information down to 1903 in regard to Halde-  
man's species was summarized in my paper in the NAUTILUS,  
XVII, p. 25. The re-discovery of *A. obscurus* by Goodrich in  
1913 (NAUT., XXVII, p. 92) in the South Fork of the Powell  
River at Big Stone Gap, Wise Co., Va., has enabled the specific  
standing of that species to be definitely determined and given  
a basis for comparison with other forms that have been referred  
to it.

Through the courtesy of Miss Crystal Thompson, the Curator  
of the Amherst College Museum, I have been able to examine  
all of the *Ancylidæ* in the C. B. Adams collection. This  
material with some other in my own collection obtained from  
different sources has enabled me to come to conclusions, more  
or less definite, in regard to the recorded citations of Halde-  
man's species in Florida and the West Indies.

The doubt expressed by Bourguignat, Tryon and Clessin as  
to the correctness of the West-Indian citations proves to be  
fully justified.

In the Adams collection are two lots labeled "*A. obscurus* ?  
Hald." These contain three very distinct species, none of  
which is *obscurus*. They will be considered separately.

One of these, however, is identical with a set in my own col-  
lection received as "*A. obscurus*" from Sowerby and Fulton  
and these again are the same as a set in the MacAndrew collec-  
tion labeled "*A. chittyi* Ads." from Guadeloupe. The original

label is with these specimens, but I have not been able to identify the handwriting. It is quite possible that they came from Marie as MacAndrew had considerable material from the Marie collection. These shells do not at all agree with Adams' description of *chittyi* nor with the figure of that species given by Bourguignat in the J. de Con., IV, 1853, p. 172, pl. VI, fig. 10. Unfortunately Bourguignat does not state whether his figure was drawn from the unique type in the Chitty collection or not. It seems possible that the citation of *obscurus* from Guadeloupe by Fischer in 1853, which Mazé in 1883 states had not been verified to his knowledge, may have been based on similar specimens. Curiously enough, however, I have a specimen of this same species received from Geret of Paris as from the Crosse collection, which has no specific name attached whatever.

The citation of *A. obscurus* from St. Thomas rests entirely upon Shuttleworth's citation in his "Catalogue of the Terrestrial and Fluvial Shells of St. Thomas" (Ann. Lyc. Nat. Hist., N. Y., VI, 1854, p. 72) and repeated in his paper on "The Land and Fresh-water Shells of Porto Rico" (Diag. Neuer Moll., No. 6, 1854, p. 99). Shuttleworth expressly states that he relied on Adams' identification for the name. In the Adams collection is an unidentified set of a small *Ancylus* from St. Thomas received from Bland and, no doubt, collected by him on his visit to that island in 1852, which is entirely different from Haldeman's species. Bland in his notes to Shuttleworth's paper (1. c. p. 68) states that he had sent to Shuttleworth specimens of all the species that he had collected on St. Thomas and, though it is possible that Shuttleworth's specimens were received from his own collector, Blauner, it is probable, especially as he relied on Adams' identification, that were received from Bland and, if so, were, no doubt, part of the same lot in the Adams collection.

As suspected at the time and intimated in my paper (1. c. 26) the Floridan species referred to *obscurus* by Dall is quite different also.

I have not been able to obtain any additional information in regard to the species from Porto Rico referred to *obscurus* by

Shuttleworth (1. c. p. 98). But it is very improbable that it is really Haldeman's species.

All this leads to the very definite conclusion that *A. obscurus* Hald. is restricted to the head-waters of the Tennessee system in Virginia and Tennessee and does not occur in Florida or the West Indies.

Clessin (Con. Cab., Ancyclus, p. 14) designated *A. obscurus* as the type of his group, *Haldemania*. As both the genuine *obscurus* and the species that he took for it are *Lævapices* it is immaterial which should be considered to be his type. *Haldemania* having been preoccupied by Tryon (1862), Clessin's name can not be used and must fall into the synonymy of *Lævapex*.

## II.

### FERRISSIA (LÆVAPEX) OBSCURA (Hald.).\*

*Ancyclus obscurus* Haldeman, Mon., 1844, p. 9, pl. I, fig. 5; W. G. Binney, L. and F.-W. Shells, Pt. II, 1865, p. 139, fig. 232.

Haldeman's unique type came from the Nolachucky River, below Greeneville, Tenn. It measured: Length 5, width 3.5, alt. 1.5 mm. I have before me three specimens (Coll. Walker, No. 36292) collected by Goodrich in the South Fork of the Powell River at Big Stone Gap, Wise Co., Va. They measure respectively: Length 6.5, width 5, alt. 2.5 mm.; length 6.3, width 4.5, alt. 2 mm.; length 5.3, width 4, alt. 1.5 mm.

It will be noticed that the dimensions of the smallest specimen agree quite exactly with those of Haldeman's type. It also agrees in other particulars with his description and I have no doubt but that it is the same species. If so. the type was not fully matured and the largest specimen given above and to be figured hereafter represents the fully matured form. As shown by the figures it is an obovate shell, broadly rounded anteriorly and regularly, though more narrowly, rounded posteriorly, the lateral margins being about equally curved; the

\* The species will be figured in connection with the concluding part of this paper.

anterior slope is nearly straight; the posterior slope slightly concave; the left lateral slope nearly straight or only slightly convex and the right lateral slope concave; the apex is obtuse, smooth except for concentric wrinkles, situated nearly on the median line, slightly turned toward the right and at about one-third of the length; the lines of growth are fine, but distinct and regular, the surface is somewhat obsoletely wrinkled towards the margins, but there are no indications of radial striæ; the color is a yellowish horn-color, slightly tinged with green.

Compared with *F. diaphana* (Hald.) and *F. kirklandi* (Walk.) to which it is most nearly related, it is less circular in outline, the apex is more prominent, the lateral and posterior slopes are unlike and the color is different from the former, and it is less elongated and has the apex more obtuse and less excentric than the latter.

So far as appears from the small series examined, it would seem to be clearly entitled to specific distinction.

### III.

#### FERRISSIA (LÆVAPEX) DALLI, n. sp.

? *Ancylus obscurus* Clessin, Con. Cab., *Ancylus*, 1882, p. 19, pl. VI, fig. 4.

*Ancycus obscurus*? Walker, NAUT., XIII, 1903, p. 26, pl. I, figs. 16-18.

Type locality, Lake Helena, Volusia Co., Fla.

Type No. 25521 Coll. Walker. Cotypes in the collection of A. A. Hinkley.

The doubt expressed in my paper of 1903 (l. c.) as to the identity of the Floridan species referred to *obscurus* Hald. by Dall proves to have been well taken. As shown by a comparison of the description and figures given in 1903 as cited above and those of the genuine *obscurus* herein, the Floridan species is entirely different and is more closely related to *F. peninsulæ* (P. and J.) than it is to *obscurus*.

I have already (l. c.) called attention to the resemblance of the shell described and figured by Clessin as *A. obscurus* to this form. He gives no information as to the history of the speci-

men figured, but it is so different from the genuine *obscurus*, that I have but little hesitancy in referring it to this species.

As the Floridan form is a well-marked and distinct species, it must be recognized and I take pleasure in associating with it the name of Dr. Dall, who first called attention to its occurrence in Florida.

(*To be continued.*)

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#### A NEW SPECIES OF MITRA FROM CALIFORNIA.

BY WM. HEALEY DALL.

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MITRA ORCUTTI, new species.

Shell small, white, mottled with yellow brown, with five whorls of which the white smooth blunt nucleus comprises one; suture distinct, whorls moderately convex; spiral sculpture of (between the sutures four, on the last whorl about a dozen) strong rounded close-set cords closely undulated behind the periphery by numerous low narrow axial riblets with about equal interspaces; the cords in front of the periphery are not undulated, but extend to the end of the canal; there are also very fine axial striae in the interspaces; aperture narrow, simple, the pillar with two plaits, the canal hardly differentiated. Height of shell 5.6; of last whorl 2.6; diameter 2.7 mm. U. S. N. Mus. Cat. No. 334567. La Jolla, near San Diego, Cal.; C. R. Orcutt.

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#### CHANGES IN WESTERN MOLLUSCAN FAUNAS.

BY JUNIUS HENDERSON.

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In 1889 Professor T. D. A. Cockerell (Jour. Conch., VI, 61) reported the following species as obtained by Mr. Charles T. Simpson in Lodgepole Creek, Northeastern Colorado:

*Lampsilis anodontoides* (Lea).

*Lampsilis ventricosa* (Barnes).

*Lampsilis luteola* (Lam.).

*Anodonta grandis gigantea* Lea.